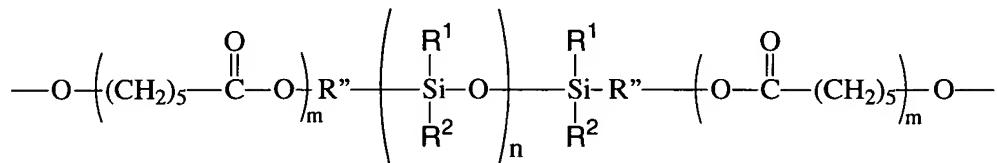


WHAT IS CLAIMED IS:

1. A photoconductive member comprised of a substrate, a photogenerating layer, a charge transport layer, and an overcoat layer wherein said overcoat layer is comprised of a crosslinked siloxane composite containing a caprolactone-siloxane copolymer group.

2. A photoconductive member in accordance with **claim 1** wherein said caprolactone-siloxane copolymer is of the formula



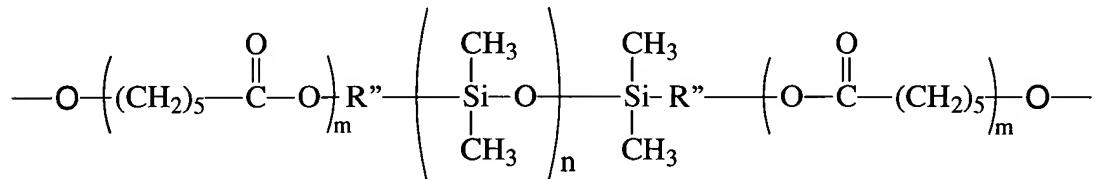
wherein R¹ and R² are each selected from the group consisting of an alkyl optionally with from 1 to about 6 carbon atoms, a vinyl, and a phenyl; R'' represents a divalent linkage organic group; m and n represent the number of repeating segments, wherein m is from about 1 to about 100, and n is from about 1 to about 100.

3. A photoconductive member in accordance with **claim 2** wherein said divalent linkage group R'' is selected from the group consisting of an alkylene optionally with from about 1 to about 30 carbon atoms, or an arylene optionally with from about 6 to about 30 carbon atoms.

4. A photoconductive member in accordance with **claim 2** wherein R'' is selected from the group consisting of methylene, dimethylene, trimethylene, tetramethylene, pentamethylene, hexamethylene, octamethylene, phenylene, biphenylene, methylenephenoxy, phenyldimethylene, and oxydiphenylene.

5. A photoconductive member in accordance with **claim 2** wherein the weight average molecular weight M_w of said copolymer is from about 300 to about 20,000.

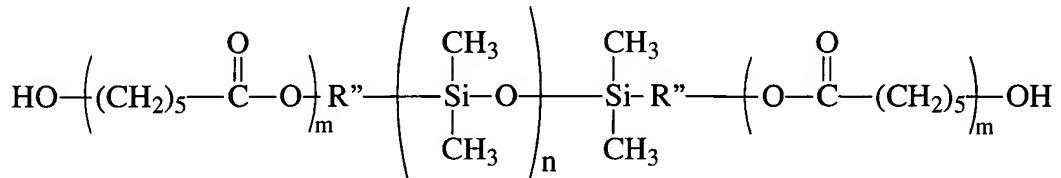
6. A photoconductive member in accordance with **claim 1** wherein said caprolactone-siloxane copolymer is of the formula



wherein R'' represents a divalent linkage organic group; m and n represent the number of repeating segments, wherein m is from about 5 to about 100, and n is from about 10 to about 50.

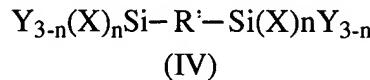
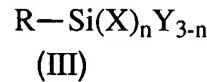
7. A photoconductive member in accordance with **claim 6** wherein the weight average molecular weight M_w of said copolymer is from about 300 to about 20,000.

8. A photoconductive member in accordance with **claim 1** wherein said overcoat is comprised of a crosslinked siloxane composite formed by a reaction of a silane compound, a hole transport component, and a caprolactone-siloxane copolymer of the formula



wherein R'' represents a divalent linkage organic group; m and n represent the number of repeating segments, wherein m is from about 5 to about 100, and n is from about 10 to about 50.

9. A photoconductive member in accordance with **claim 8** wherein said silane compound is of Formula (III) or (IV)



wherein R and X each independently represents an organic group with a carbon atom directly bonded to silicon atom; R' represents a divalent organic group; Y represents a hydrolyzable group; and n is an integer of 0, 1 and 2.

10. A photoconductive member in accordance with **claim 9** wherein R and X are each independently selected from the group consisting of an alkyl with carbon atoms from about 1 to about 30, a halogen-substituted alkyl with carbon atoms from about 1 to about 30, and an aryl having carbon atoms from about 6 to about 60.

11. A photoconductive member in accordance with **claim 9** wherein R and X are each independently selected from the group consisting of a methyl, an ethyl, a propyl, a butyl, a trifluoromethyl, a trifluoroethyl, trifluoropropyl, and tridecafluoro-1,1,2,2-tetrahydrooctyl.

12. A photoconductive member in accordance with **claim 9** wherein R and X are each independently selected from the group consisting of γ -glycidoxypropyl, β -(3,4-epoxycyclohexyl)ethyl, a γ -hydroxypropyl, a γ -acryloxypropyl, a γ -methacryloxypropyl, a vinyl, and a propenyl.

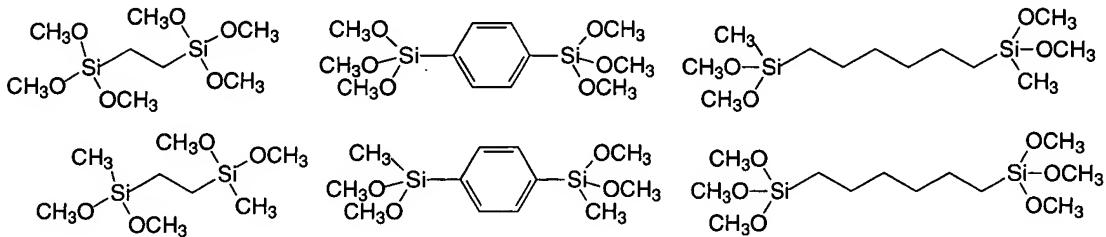
13. A photoconductive member in accordance with **claim 9** wherein R' represents a divalent organic group selected from the group consisting of an alkylene with carbon atoms from 1 to about 30, and an arylene with carbon atoms from about 6 to about 30.

14. A photoconductive member in accordance with **claim 13** wherein said R' is selected from the group consisting of methylene, dimethylene, trimethylene, tetramethylene, pentamethylene, hexamethylene, phenylene, and biphenylene.

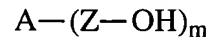
15. A photoconductive member in accordance with **claim 9** wherein Y is selected from the group consisting of a methoxy, an ethoxy, a propoxy, a butoxy, an acetoxy and an allyl group.

16. A photoconductive member in accordance with **claim 9** wherein said silane compound of Formula (I) is selected from the group consisting of methyltrimethoxysilane, ethyltrimethoxysilane, propyltrimethoxysilane, methyltriethoxysilane, octyltrimethoxysilane, and phenyltrimethoxysilane.

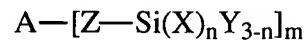
17. A photoconductive member in accordance with **claim 9** wherein said silane compound of Formula (II) is selected from the group consisting of



18. A photoconductive member in accordance with **claim 8** wherein said hole transporting component is selected from Formula (V) or (VI)



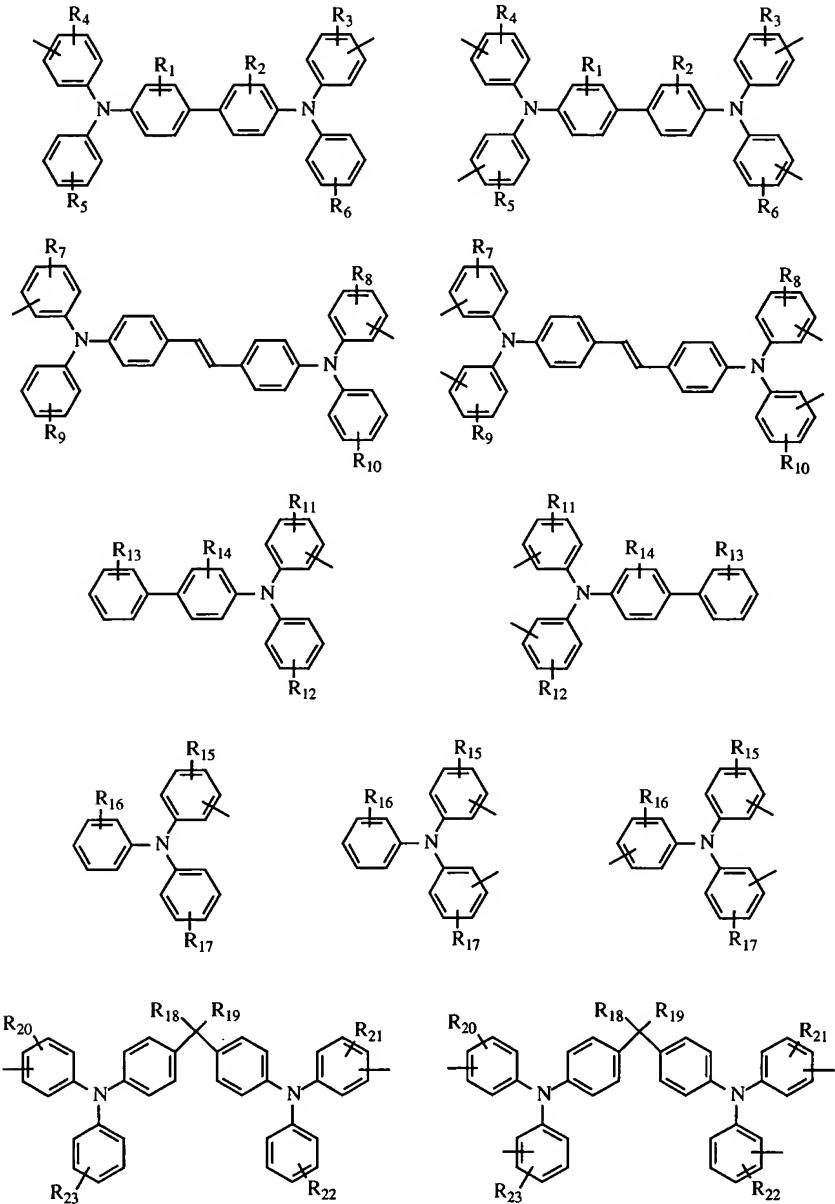
(V)



(VI)

wherein A represents a charge transport moiety; Z represents a single bond linkage or a divalent linkage organic group; X represents an organic group with a carbon atom directly bonded to silicon atom; Y represents a hydrolyzable group; n is 0, 1 and 2, and m is a number, preferably selected from about 1 to about 5.

19. A photoconductive member in accordance with **claim 18** wherein A is selected from the group consisting of the following formula structures



wherein R₁ to R₂₃ are independently selected from a hydrogen atom, an alkyl, a cyclic alkyl, and a halogen atom, for example, alkyl groups containing from 1 to about 25 carbon atoms, cyclohexyl group, a chloride, and a bromide.

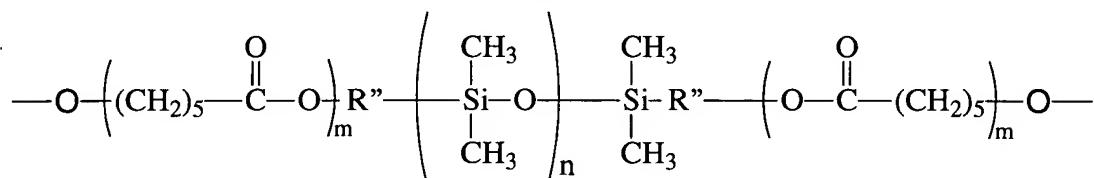
20. A photoconductive member in accordance with **claim 8** wherein said silane compound is present in said overcoat layer in an amount of from about 20 to about 80 weight percent; said caprolactone-dimethylsiloxane block copolymer is present in an amount of from about 0.1 to about 20 weight percent; said hole transport molecule is present in an amount of from about 5 to about 60 weight percent; the total amount of all components in the crosslinked siloxane composite equals about 100 weight percent.

21. A photoconductive member in accordance with **claim 1** wherein said composite further contains metal oxide filler.

22. A photoconductive member in accordance with **claim 21** wherein said metal oxide filler is comprised of aluminum oxide, silicon oxide and titanium oxide particles with a size diameter ranging from about 1 to about 250 nanometers.

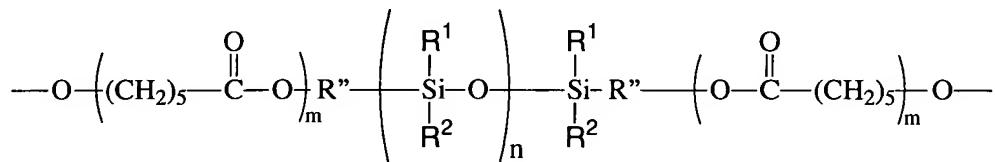
23. A photoconductive member in accordance with **claim 21** wherein said metal oxide is of a nanoparticle size and is present in said overcoat layer in an amount of from about 0.1 to about 50 percent by weight of total solids.

24. A photoconductive member comprised of a substrate comprised of a conductive metal of aluminum, aluminized polyethylene terephthalate or titanized polyethylene terephthalate; a photogenerating layer comprised of hydroxygallium phthalocyanine or chlorogallium phthalocyanine; a charge transport layer containing N,N'-diphenyl-N,N-bis(3-methyl phenyl)-1,1'-biphenyl-4,4'-diamine and/or N,N-bis(3,4-dimethyl phenyl)-N-biphenylamine, and a binder of a polycarbonate; and an overcoat layer, wherein said overcoat layer is comprised of a crosslinked siloxane composite containing a caprolactone-siloxane copolymer group of the formula



wherein m is from about 10 to about 50, and n is from about 10 to about 50.

25. A photoconductive component comprised of a photogenerating layer, a charge transport layer, and an overcoat layer wherein said overcoat layer is comprised of a crosslinked siloxane composite containing a caprolactone-siloxane polymer, and wherein said caprolactone-siloxane copolymer is of the formula



wherein R¹ and R² are each alkyl, aryl; R'' represents an organic component; and m and n represent the number of repeating groups.